



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D3912-1
Job Sheet 169302



Part No: D3912-1

Job Qty: 20 ea

Part Name: Eyebolt



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 12/6/17

Job Tracking No:

Due Date: 12/19/17

Created By: Mario Poulin

Type: SOLD

Description:

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	20 Ea	12/18/17	12/18/17	0.00	0.00	Start Up Machining-2		17/12/17
100	Doosan	20 pcs	12/19/17	12/19/17	0.00	14.29	Doosan		17/12/17
110	QC	20 pcs	12/19/17	12/19/17	0.00	0.00	QC2 Machining-2		17/12/17
120	QC	20 pcs	12/19/17	12/19/17	0.00	0.00	QC8 Machining-2		17/12-21
130	Packaging	20 pcs	12/19/17	12/19/17	0.00	0.00	Packaging3-2		AT
140	QC21-SA	20 Ea	12/19/17	12/19/17	0.00	0.00	QC21		

Part Op Descriptions: 100 - TURN AS PER FOLIO FA871AND DWG Prog Rev: _____ Debur as required

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	M303R2.000	5	70	0	0

Part Specifications

Spec No	Description	Target/Tolerance	Limits	Type	Special Comments
1	Eyebolt	0.130Inches $\pm$ 0.030	0.160 0.100		
2	Eyebolt	0.700Inches $\pm$ 0.010	0.710 0.690		
3	Eyebolt	0.500Inches $\pm$ 0.010	0.510 0.490		
4	Eyebolt	0.900Inches $\pm$ 0.030	0.930 0.870		
5	Eyebolt	0.130Inches $\pm$ 0.030	0.160 0.100		
6	Eyebolt	45.0Degrees $\pm$ 0.5	45.5 44.5		
7	Eyebolt	0.220Inches $\pm$ 0.030	0.250 0.190		
8	Eyebolt	0.750Inches $\pm$ 0.030	0.780 0.720		
9	Eyebolt	0.970Inches $\pm$ 0.010	0.980 0.960		
10	Eyebolt	1.720Inches $\pm$ 0.030	1.750 1.690		

DQA: _____ Date: _____

WORK ORDER NON-CONFORMANCE / UPDATE



QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval 		
Description Work Order Deviation				Disposition					
								Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	

Root Cause				FAULT CATEGORY							
Environment	☐	No Re-verification	☐	Pressure/Forced	☐	Temperature/Cure	☐	Power Loss/Surge	☐	Positioned Wrong	☐
Design	☐	Operator	☐	Bending	☐	Set-up	☐	Folio/Program	☐	Outside Dimensions	☐
Doc/Data	☐	Offset/Setup	☐	Centre Not Concentric	☐	BOM/Route	☐	Grain	☐	Over/Under tolerance	☐
Equip/Tooling	☐	Supplier	☐	Cracks	☐	Broken/Damage/Defect	☐	Weld	☐	Part Incorrect	☐
Handling/Pre	☐	Training	☐	Crimp/Kink/Ripple/Wave	☐	Inspection Incomplete/Unqualified	☐	Wrong Stock Pulled	☐	Part Lost/Missing	☐
Material	☐	Use for Testing	☐	Cuffs	☐	Contamination	☐	Out of Sequence	☐	Part Moved	☐
Internal Transport	☐	Poor Information	☐	Crushing	☐	Countersink	☐	Off-set	☐	Drawing	☐
Tribal Knowledge	☐	Rushing	☐	Heat Treat	☐	Cut Too Short	☐	Mislabeled	☐	Finish	☐
LOA	☐	Product Improvement	☐	Wave/Twist in Tube	☐	Instructions Incomplete/Unclear	☐	Fit/Function	☐	Misread	☐
Substation	☐	Process Improvement	☐	Marks/Chatter	☐	Drill Holes	☐	Misaligned/off center	☐	Turning Sequence	☐
Past Expiry Date	☐	Manufacturing Process	☐	OTHER :							
Misidentified	☐	Past Due	☐								

11	Eyebolt	1.200Inches ± 0.030	1.230 1.170	
12	Eyebolt	0.6250Inches ± 0.0100	0.6350 0.6150	
13	Eyebolt	2.230Inches ± 0.030	2.260 2.200	
14	Eyebolt	0.130Inches ± 0.030	0.160 0.100	Radius
15	Eyebolt	0.015Inches ± 0.010	0.025 0.005	Radius
16	Eyebolt	0.625Inches ± 0.010	0.635 0.615	
17	Eyebolt	0.650Inches ± 0.010	0.660 0.640	
18	Eyebolt	1.100Inches ± 0.010	1.110 1.090	
19	Eyebolt	0.440Inches ± 0.030	0.470 0.410	
20	Eyebolt	0.130Inches ± 0.030	0.160 0.100	Radius
21	Eyebolt	1.000Inches ± 0.030	1.030 0.970	
22	Eyebolt	0.250Inches ± 0.030	0.280 0.220	
23	Eyebolt	0.880Inches ± 0.030	0.910 0.850	
24	Eyebolt	0.110Inches ± 0.030	0.140 0.080	
25	Eyebolt	0.719Inches + 0.010 - 0.000	0.729 0.719	

Plex 12/6/17 3:38 PM dart.poulin.mario

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date :	Step #:	QTY Effective :		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐		FAULT CATEGORY Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐ Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : ☐					

DART AEROSPACE LTD		Work Order:	169302
Description: Eyebolt		Part Number:	D3912-1
Inspection Dwg: D3912 Rev: B		Page 1 of 1	

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
0.13	+/-0.030	.130	/		VERN	21-1
Ø0.700	+/-0.010	.700	/			
Ø0.500	+/-0.010	.500	/			
0.90	+/-0.030	.899	/		H-G	
0.13 x 45°	+/-0.030 x 0.5°	125X45	/		VERN	
0.22	+/-0.030	.218	/			
0.75	+/-0.030	.751	/			
0.970	+/-0.010	.971	/			
1.72	+/-0.030	1.720	/			
1.20	+/-0.030	1.198	/			
0.625	+/-0.010	.625	/			
2.23	+/-0.030	2.229	/			
R0.13	+/-0.030	R.130	/			
R0.015	+/-0.010	R.015	/			
0.625	+/-0.010	.625	/			
Ø0.650	+/-0.010	.650	/			
1.100	+/-0.010	1.100	/			
0.44	+/-0.030	.440	/			
R0.13	+/-0.030	R.125	/			
1.00	+/-0.030	1.002	/			
0.25	+/-0.030	.250	/			
0.88	+/-0.030	.880	/			
0.11	+/-0.030	.110	/			
Ø0.719	+0.010/-0.000	.725	/			

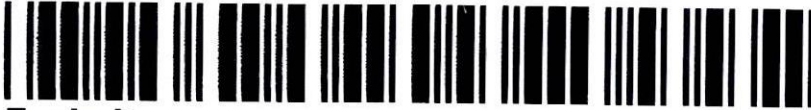
Measured by:	JK	Audited by:	FK	Preliminary Approval:	
Date:	17-12-18	Date:	17-12-21	Date:	

Rev	Date	Change	Revised by	Approved
A	10.06.07	New Issue	KJ	
B	10.08.09	Dimensions revised per Dwg Rev B	KJ	

DART
AEROSPACE
S025131

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Eyebolt

PART NO: D3912-1
Revision:
Operation: Start up Operation
Change No:

Mfg Date: 12/19/17

Job No: 169302